

Serial No. 09/748,609

Filing Date: December 26, 2000

Amendments to the Claims:

The listing of Claims will replace all prior versions and listings of the Claims in the application:

Listing of Claims

- 1.- 2. (Cancelled)
3. (Previously Presented) An active low-pass filter system including:  
a low-pass filter circuit that includes a resistive forward signal flow branch and a Sallen & Key filter; and  
an isolated-integrator band-reject filter coupled to the resistive forward signal flow branch.
- 4.-5 (Cancelled).
6. (Previously Presented) A power amplifier system for driving a load comprising:  
a pulse width modulation power circuit creating ripple spectra;  
an error amplifier and modulator circuit connected to an input of the pulse width modulation power circuit;  
a demodulation filter connected between said pulse width modulation power circuit and the load;  
a feedback control loop coupled to said error amplifier and modulator circuit and including:  
an active low-pass filter;  
a first resistive voltage divider circuit coupled between the output of said demodulation filter and a first input of said low-pass filter;  
a feedback demodulation filter coupled to a second input of said low-pass filter and including at least one isolated-integrator band-reject filter; and  
a second resistive voltage divider circuit coupled between the output of said pulse width modulation power circuit and said feedback demodulation filter.
7. - 8. (Cancelled)
9. (Previously Presented) A power amplifier system for driving a load comprising:  
a pulse width modulation power circuit having an input and an output;

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an error amplifier and modulator circuit connected to the input of the pulse width modulation power circuit;

a demodulation filter connected to the output of the pulse width modulation power circuit;

a feedback control loop coupled to the error amplifier and modulator circuit and to the output of the pulse width modulation power circuit, the feedback control loop including a feedback demodulation filter, wherein an isolated-integrator band-reject filter is imbedded within the feedback demodulation filter.

10. (Previously Presented) The system of claim 9, wherein the isolated-integrator band-reject filter includes a variable resistor for tuning the isolated-integrator band-reject filter.

11. (Previously Presented) The system of claim 9, wherein the feedback demodulation filter is operable as a low-pass filter to remove pulse width modulated spectra from the feedback control loop, the pulse width modulated spectra produced by the pulse width modulation power circuit.

12. (Previously Presented) The system of claim 9, wherein the feedback demodulation filter includes a resistive forward signal flow branch, the isolated-integrator band-reject filter being electrically connected within the resistive forward signal flow branch.

13. - 15 (Cancelled)

16. (Currently Amended) The active low-pass filter system of claim 343, wherein the low-pass filter circuit includes a first resistor and a second resistor, the isolated-integrator band-reject filter electrically connected between the first and second resistors.

17. (Previously Presented) The active low-pass filter system of claim 16, wherein at least one of the first and second resistors has a resistive value of zero.

18. (Currently Amended) The active low-pass filter system of claim 343, wherein the isolated-integrator band-reject filter includes at least three capacitors with equal value and at least two resistors with equal value.

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19. (Previously Presented) An active low-pass filter system comprising:  
a low pass filter circuit having an input terminal and an output terminal, wherein the low-pass filter circuit includes a Sallen & Key filter; and  
an isolated-integrator band-reject filter incorporated into the low pass filter circuit between the input terminal and the output terminal.

20.- 21. (Cancelled)

22. (New) The system of Claim 3, wherein the band-reject filter includes a resistor for tuning the band-reject filter.

23. (New) The active low-pass filter system of claim 19, wherein the low-pass filter circuit includes a resistive forward signal flow branch between the input terminal and the output terminal, the isolated-integrator band-reject filter is incorporated into the resistive forward signal flow branch.